



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
PO Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
09/800,978	03/08/2001	Kesar Saleem	079-146	2167

7590 05/07/2003

Donald C. Casey  
Suite 100  
311 North Washington Street  
Alexandria, VA 22314

EXAMINER

LEE, BENNY T

ART UNIT	PAPER NUMBER
2817	

DATE MAILED: 05/07 2003

Please find below and/or attached an Office communication concerning this application or proceeding.



DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCUMENT NO.

EXAMINER

ART UNIT PAPER NUMBER

DATE MAILED: 8/11/2018

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined  Responsive to communication filed on 8/11/2018  This action is made final.  
A shortened statutory period for response to this action is set to expire Three (3) month(s), 7/13/2018 from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1.  Notice of References Cited by Examiner, PTO-892. 2.  Notice re Patent Drawing, PTO-648.  
2.  Notice of Art Cited by Applicant, PTO-1449. 4.  Notice of Informal Patent Application, Form PTO-152  
3.  Information on how to Effect Drawing Changes, PTO-1474. 6.  \_\_\_\_\_

Part II SUMMARY OF ACTION

1.  Claims 1 - 25 are pending in the application.  
Of the above, claims   are withdrawn from consideration.  
2.  Claims   have been cancelled.  
3.  Claims   are allowed.  
4.  Claims 1 - 24, 25 are rejected.  
5.  Claims   are objected to.  
6.  Claims   are subject to restriction or election requirement.  
7.  This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.  
8.  Allowable subject matter having been indicated, formal drawings are required in response to this Office action.  
9.  The corrected or substitute drawings have been received on  . These drawings are  acceptable;  not acceptable (see explanation).  
10.  The  proposed drawing correction and/or the  proposed additional or substitute sheet(s) of drawings, filed on   has (have) been  approved by the examiner;  disapproved by the examiner (see explanation).  
11.  The proposed drawing correction, filed  , has been  approved;  disapproved (see explanation). The Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawing is corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.  
12.  Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has  been received  not been received.  
 been filed in parent application, serial no.  ; filed on  .  
13.  Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 O.G. 11; 453 O.G. 213.  
14.  Other: \_\_\_\_\_

Art Unit: 2817

The disclosure is objected to because of the following informalities: Note that subheadings should be provided to delineate the different sections of the specification. Page 1, last line, note that "main desired" should be rephrased as -- desired main -- for clarity. Page 2, last line, should -  $\lambda$  <sup>(first occ)</sup> -  $\frac{1}{2}\lambda$  follow "wavelength" for a complete description? Page 4, line 2, note that each occurrence of "said" should be deleted as being unnecessary. Page 6, last line; page 7, lines 11, 15: note that "two of which..." should be respectively rephrased to provide a proper characterization. Page 9, line 14, note that "two 28 and 29..." should be rephrased for a proper characterization. Note that figure 2, in it's entirety, needs to be described in the specification.

Appropriate correction is required.

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, note that it is unclear what characterizes "onward transmission". Clarification is needed.

In claims 9, 10, 11, 13, note that it is unclear how "a reflector slit" and two reflector slits " are intended to be related to the at least one...reflector slit".

For example, are such slit(s) intended to be a part of the "at least one...slit" or slits separate therefrom. Clarification is needed.

In claim 16, note that the recitation "which at least reduces transmission..." renders the claim vague and indefinite, especially since the "at least" recitation appears to connote functions other than reducing transmission which are unspecified.

Clarification is needed.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

The following claims have been found objectionable for reasons set forth below:

In claim 2, 17, note that "an axial direction" should be defined relative to the earlier recited "longitudinal axis".

In claim 3, note that "through its outer conductor via which" should be rephrased as -- extending through an outer conductor of the coaxial line through which -- for clarity of description.

In claim 4, note that -- at least one -- should precede slot for consistency of description.  
- - ~~PI~~ - -

In claim 6, note that ~~A~~ Should precede mode " (first occ) and "-1" for completeness of description.

In claim 7, note that wavegu~~ic~~ should be correctly spelled as -- waveguide --.

Art Unit: 2817

In claim 10, 11, 19, note that "the (outer/inner) conductor" should be respectively rephrased as -- an (outer/inner) conductor --.

In claim 17, note that "the cathode lead" should be rephrased as -- a cathode lead -- and "its" should be rewritten as -- the energy -- for clarity of description.

In claims 18, 20, note that "via" should be rewritten as -- through -- for clarity.

In claim 19, note that "the said" should be rewritten as -- through -- for clarity.

In claim 19, note that "the said" should be rewritten as either -- the -- or -- said --.

In claim 23, should 3/4 correctly be -- 3/4 --? If such is the case, then -- -- needs to be strictly defined within the claim.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. Claims 1, 6, 7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cook.

Cook fig. 1 discloses a magnetron including an anode (1) with an interaction (or cavity) region (3) coaxially surrounding a cathode (2) aligned along a longitudinal axis. As depicted in fig. 3, an output means comprises a coaxial line (22).

As disclosed with respect to fig. 2, energy can be propagated in the N/2 (i.e.  $\frac{\pi}{2}$ ) mode and in the N/2-1 (i.e.  $\frac{\pi}{4}$ ) mode within the magnetron (e.g. see col. 3 ls 25-40). Accordingly, these modes, having well recognized field characteristic, inherently would have propagate in a coaxial

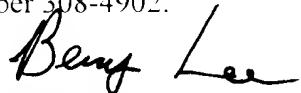
Art Unit: 2817

waveguide mode and a cylindrical waveguide mode, respectively. Moreover, col. 3, ls 45-50 indicate a desirability to provide for reflectless operation by using a heavily loaded magnetron to reduce undesired coupling of undesired mode propagation (e.g.  $\pi^-$  mode).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tonks and Allaire et al pertain to output coaxial line coupling for magnetrons.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 308-4902.

  
BENNY LEE  
PRIVILEGED  
ART UNIT 2817  
lee/ds

05/04/03